

# Report for ASE - Homewok 1

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Repo link: [https://github.com/giuseppe-crea/ASE\\_Assignment\\_1](https://github.com/giuseppe-crea/ASE_Assignment_1)

## Screenshots

### Successful execution of the tests

```
----- coverage: platform win32, python 3.9.0-final-0 -----
Name                               Stmts   Miss Branch BrPart  Cover   Missing
-----
bedrock_a_party\classes\party.py    64      8     10      2    86%   17, 31, 39-40, 99, 102, 107, 110
bedrock_a_party\views\parties.py    73     11     22      5    81%   25->29, 49-53, 64->67, 85-86, 93-94, 112-113, 135
TOTAL                                188     19     32      7    87%

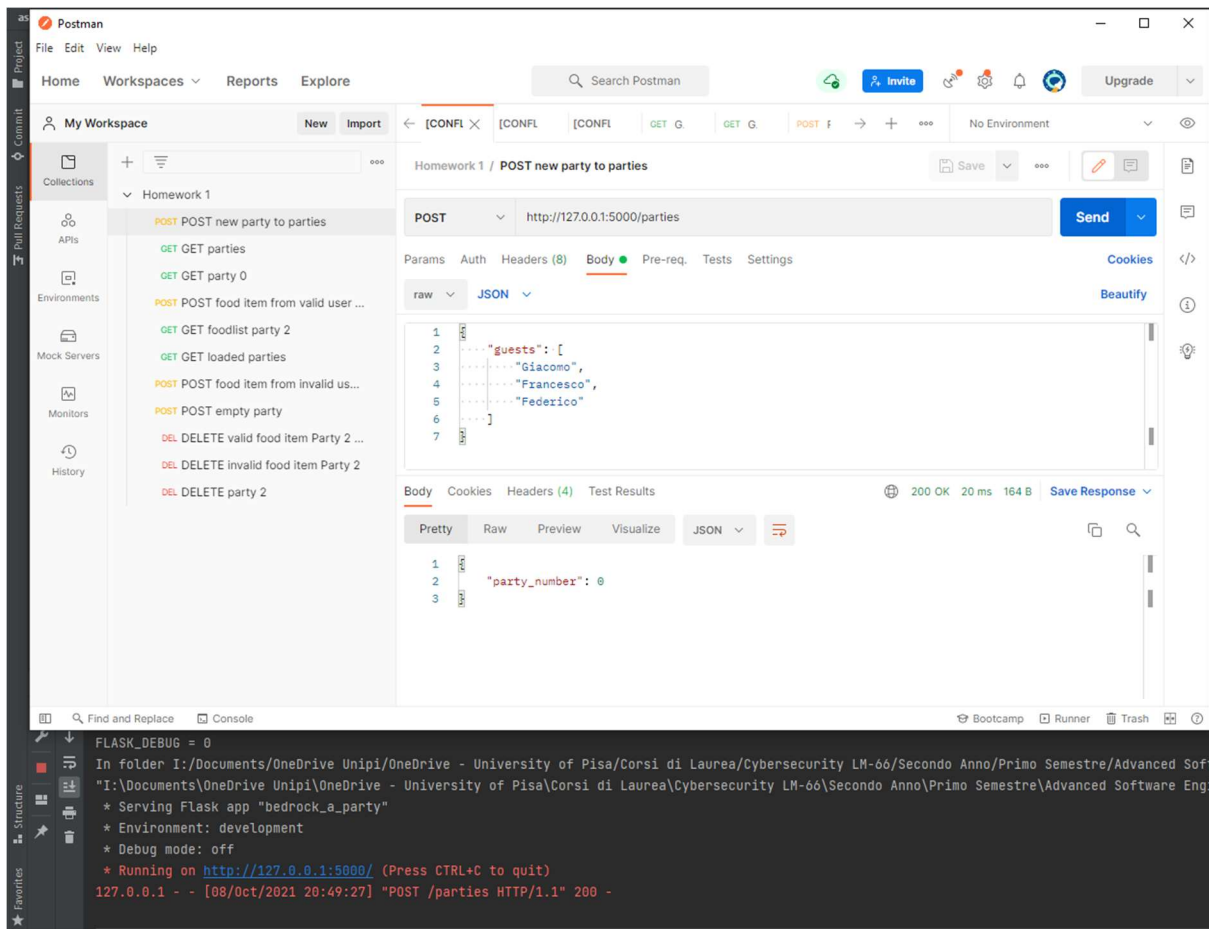
0 files skipped due to complete coverage.
Coverage HTML written to dir htmlcov

FAIL Required test coverage of 98% not reached. Total coverage: 87.27%
2 passed, 17 warnings in 1.67s
PS I:\Documents\OneDrive Unipi\OneDrive - University of Pisa\Corsi di Laurea\Cybersecurity LM-66\Secondo Anno\Primo Semestre\Advanced Software Engineering\Python\skeleton\ase-assignment1-master>
```

Operations sorted by the order in which they appear within the test file.

### 1- Test File Success

#### 1<sup>st</sup> Test Case



### 2- POST a new party in /parties

The screenshot displays the Postman application interface. On the left, the 'My Workspace' sidebar shows a collection named 'Homework 1' with several API requests. The main panel shows a 'POST' request to 'http://127.0.0.1:5000/parties'. The request body is a JSON object with a 'guests' array containing three names: 'Giacomo', 'Francesco', and 'Federico'. The response is a JSON object with 'party\_number': 2. The status bar indicates a 200 OK response with a 7 ms latency and 164 B body size. At the bottom, a terminal window shows the command prompt output for running the Flask app, including the URL 'http://127.0.0.1:5000/' and the command 'curl -X POST http://127.0.0.1:5000/parties'.

```
"I:\Documents\OneDrive Unipi\OneDrive - University of Pisa\Corsi di Laurea\Cybersecurity LM-66\Secondo Anno\Primo Semestre\Advanced Software Eng
* Serving Flask app "bedrock_a_party"
* Environment: development
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [08/Oct/2021 20:49:27] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:58] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:59] "POST /parties HTTP/1.1" 200 -
```

3- POST two additional copies of that party

Postman

File Edit View Help

Home Workspaces Reports Explore

Search Postman

My Workspace

New Import

Homework 1 / GET loaded parties

GET http://127.0.0.1:5000/parties/loaded ...

Params Auth Headers (6) Body Pre-req. Tests Settings

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (4) Test Results

200 OK 7 ms 166 B

Pretty Raw Preview Visualize JSON

```
1 {
2   "loaded_parties": 3
3 }
```

Find and Replace Console

Bootcamp Runner Trash

```
* Serving Flask app "bedrock_a_party"
* Environment: development
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [08/Oct/2021 20:49:27] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:58] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:59] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:28] "GET /parties/loaded HTTP/1.1" 200 -
```

3- GET /parties/loaded

Postman interface showing a REST client setup for a "Homework 1" workspace. The selected endpoint is "GET parties" at "http://127.0.0.1:5000/parties". The response is displayed in the "Body" tab, showing a JSON array of party objects. The console at the bottom shows the execution of several HTTP requests and responses.

**Endpoint:** GET http://127.0.0.1:5000/parties

**Query Params:**

KEY	VALUE	DESCRIPTION
Key	Value	Description

**Response Body (JSON):**

```
[{"loaded_parties": [{"foodlist": [], "guests": ["Giacomo", "Francesco", "Federico"], "id": 0}, {"foodlist": [], "guests": ["Giacomo", "Francesco", "Federico"], "id": 1}, {"foodlist": [], "guests": ["Giacomo", "Francesco", "Federico"], "id": 2}]]
```

**Console Log:**

```
* Environment: development
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [08/Oct/2021 20:49:27] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:58] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:59] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:28] "GET /parties/loaded HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:50] "GET /parties HTTP/1.1" 200 -
```

4- GET /parties, return json shrunk for readability

The screenshot displays the Postman application window. The top bar includes the Postman logo, menu items (File, Edit, View, Help), and navigation tabs (Home, Workspaces, Reports, Explore). A search bar and utility buttons (Invite, Upgrade) are also present.

The main workspace is titled "My Workspace" and shows a collection of API requests under "Homework 1". The selected request is "POST empty party". The request details are as follows:

- Method:** POST
- URL:** http://127.0.0.1:5000/parties ...
- Body:** raw JSON, containing:

```
{
  "guests": []
}
```

The response section shows a "400 BAD REQUEST" status with a response time of 9 ms and a size of 299 B. The response body is displayed in "Pretty" format:

```
{
  "code": 400,
  "description": "'You cannot create a party without guests'",
  "message": "400 Bad Request: 'You cannot create a party without guests'"
}
```

The bottom panel shows the console output, indicating that the application is running on http://127.0.0.1:5000/ and displaying the results of several HTTP requests, including the failed POST request.

5- POST /parties with empty party

## 2<sup>nd</sup> Test

The screenshot displays the Postman application interface. On the left sidebar, under 'My Workspace', a collection named 'Homework 1' is expanded, showing a list of API requests. The selected request is 'GET party 2'. The main panel shows the details of this request: a GET method to the URL 'http://127.0.0.1:5000/party/2'. The 'Query Params' section is empty. The 'Body' tab is selected, showing a JSON response in 'Pretty' format. The response is a 200 OK status with a 7ms response time and 212 bytes of data. The JSON body contains a 'foodlist' array, a 'guests' array with names 'Giacomo', 'Francesco', and 'Federico', and an 'id' of 2. At the bottom, a console window shows the execution log of the request, confirming the successful GET response.

Postman

File Edit View Help

Home Workspaces Reports Explore

Search Postman

My Workspace

New Import

Homework 1 / GET party 2

GET http://127.0.0.1:5000/party/2

Params Auth Headers (6) Body Pre-req. Tests Settings

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (4) Test Results

200 OK 7 ms 212 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "foodlist": [],
3   "guests": [
4     "Giacomo",
5     "Francesco",
6     "Federico"
7   ],
8   "id": 2
9 }
```

Find and Replace Console

Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)

```
127.0.0.1 - - [08/Oct/2021 20:49:27] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:58] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:59] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:28] "GET /parties/loaded HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:50] "GET /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:51:22] "POST /parties HTTP/1.1" 400 -
127.0.0.1 - - [08/Oct/2021 20:51:52] "GET /party/2 HTTP/1.1" 200 -
```

6- GET /party/2

Postman

File Edit View Help

Home Workspaces Reports Explore

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My Workspace

New Import

Homework 1

POST POST new party to parties

GET GET parties

GET GET party 2

GET GET party 100

POST POST food item from valid user ...

GET GET foodlist party 2

GET GET loaded parties

POST POST food item from invalid us...

POST POST empty party

DEL DELETE valid food item Party 2 ...

DEL DELETE invalid food item Party 2

DEL DELETE party 2

Homework 1 / GET party 100

GET http://127.0.0.1:5000/party/100

Send

Params Auth Headers (6) Body Pre-req. Tests Settings

Query Params

KEY	VALUE	DESCRIPTION	Bulk Edit
Key	Value	Description	

Body Cookies Headers (4) Test Results

404 NOT FOUND 12 ms 451 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "code": 404,
3   "description": "The requested URL was not found on the server. If you entered the URL
4   manually please check your spelling and try again.",
5   "message": "404 Not Found: The requested URL was not found on the server. If you entered the
6   URL manually please check your spelling and try again."
}
```

Find and Replace Console

Bootcamp Runner Trash

```
127.0.0.1 - - [08/Oct/2021 20:49:27] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:58] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:59] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:28] "GET /parties/loaded HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:50] "GET /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:51:22] "POST /parties HTTP/1.1" 400 -
127.0.0.1 - - [08/Oct/2021 20:51:52] "GET /party/2 HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:52:38] "GET /party/100 HTTP/1.1" 404 -
```

7- GET /party/100

Postman interface showing a REST client setup for a POST request to create a new food item in an existing party.

**Request Details:**

- Method: POST
- URL: `http://127.0.0.1:5000/party/2/foodlist/Francesco/pizza...`
- Headers (7): Key, Value, Description
- Body: `{ "food": "pizza", "user": "Francesco" }`

**Response:** 200 OK, 8 ms, 181 B

**Console Log:**

```
127.0.0.1 - - [08/Oct/2021 20:49:58] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:49:59] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:28] "GET /parties/Loaded HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:50] "GET /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:51:22] "POST /parties HTTP/1.1" 400 -
127.0.0.1 - - [08/Oct/2021 20:51:52] "GET /party/2 HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:52:38] "GET /party/100 HTTP/1.1" 404 -
127.0.0.1 - - [08/Oct/2021 20:53:07] "POST /party/2/foodlist/Francesco/pizza HTTP/1.1" 200 -
```

8- POST a new food item in existing party from guest of that party



The screenshot shows the Postman application interface. On the left, the 'My Workspace' sidebar lists a collection named 'Homework 1' containing several API requests. The selected request is 'POST food item from invalid user party 2'. The main panel shows the details of this request, which is a POST to 'http://127.0.0.1:5000/party/2/foodlist/Marco/pizza'. The 'Body' tab is active, showing 'none'. The 'Test Results' tab shows a '401 UNAUTHORIZED' status with a response body in JSON format. The console at the bottom displays the execution history of the requests.

**Request Details:**

- Method: POST
- URL: http://127.0.0.1:5000/party/2/foodlist/Marco/pizza
- Body: none

**Response (401 UNAUTHORIZED):**

```
{
  "code": 401,
  "description": "'Marco is not invited to this party'",
  "message": "401 Unauthorized: 'Marco is not invited to this party'"
}
```

**Console Log:**

```
127.0.0.1 - - [08/Oct/2021 20:49:59] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:28] "GET /parties/loaded HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:50] "GET /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:51:22] "POST /parties HTTP/1.1" 400 -
127.0.0.1 - - [08/Oct/2021 20:51:52] "GET /party/2 HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:52:38] "GET /party/100 HTTP/1.1" 404 -
127.0.0.1 - - [08/Oct/2021 20:53:07] "POST /party/2/foodlist/Francesco/pizza HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:53:40] "POST /party/2/foodlist/Marco/pizza HTTP/1.1" 401 -
```

9- POST a new food item to existing party from someone who is NOT a guest of that party

Postman

File Edit View Help

Home Workspaces Reports Explore

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My Workspace

New Import

Homework 1 / GET foodlist party 2

GET http://127.0.0.1:5000/party/2/foodlist ...

Params Auth Headers (6) Body Pre-req. Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	Bulk Edit
Key	Value	Description	

Body Cookies Headers (4) Test Results

200 OK 7 ms 196 B Save Response

Pretty Raw Preview Visualize JSON

```
1 2 3 4 5 6 7 8
{
  "foodlist": [
    {
      "food": "pizza",
      "user": "Francesco"
    }
  ]
}
```

Find and Replace Console

Bootcamp Runner Trash

```
127.0.0.1 - - [08/Oct/2021 20:50:28] "GET /parties/loaded HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:50:50] "GET /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:51:22] "POST /parties HTTP/1.1" 400 -
127.0.0.1 - - [08/Oct/2021 20:51:52] "GET /party/2 HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:52:38] "GET /party/100 HTTP/1.1" 404 -
127.0.0.1 - - [08/Oct/2021 20:53:07] "POST /party/2/foodlist/Francesco/pizza HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:53:40] "POST /party/2/foodlist/Marco/pizza HTTP/1.1" 401 -
127.0.0.1 - - [08/Oct/2021 20:53:57] "GET /party/2/foodlist HTTP/1.1" 200 -
```

10- GET party/2/foodlist

Postman

File Edit View Help

Home Workspaces Reports Explore

Search Postman

My Workspace

New Import

Homework 1

- POST POST new party to parties
- GET GET parties
- GET GET party 2
- GET GET party 100
- POST POST food item from valid user ...
- GET GET foodlist party 2
- GET GET loaded parties
- POST POST food item from invalid us...
- POST POST empty party
- DEL DELETE valid food item Party 2 ...
- DEL DELETE invalid food item Party 2
- DEL DELETE party 2

Homework 1 / DELETE valid food item Party 2 Copy

DELETE http://127.0.0.1:5000/party/2/foodlist/Francesco/pizza ...

Params Auth Headers (6) Body Pre-req. Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (4) Test Results

200 OK 8 ms 169 B Save Response

Pretty Raw Preview Visualize JSON

```
1  {
2    "msg": "Food deleted!"
3  }
```

Find and Replace Console

Bootcamp Runner Trash

```
127.0.0.1 - - [08/Oct/2021 20:50:50] "GET /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:51:22] "POST /parties HTTP/1.1" 400 -
127.0.0.1 - - [08/Oct/2021 20:51:52] "GET /party/2 HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:52:38] "GET /party/100 HTTP/1.1" 404 -
127.0.0.1 - - [08/Oct/2021 20:53:07] "POST /party/2/foodlist/Francesco/pizza HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:53:40] "POST /party/2/foodlist/Marco/pizza HTTP/1.1" 401 -
127.0.0.1 - - [08/Oct/2021 20:53:57] "GET /party/2/foodlist HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:54:16] "DELETE /party/2/foodlist/Francesco/pizza HTTP/1.1" 200 -
```

11- DELETE valid food item from foodlist

## Outside of Tests:

The screenshot shows the Postman interface. On the left, the 'My Workspace' sidebar lists a collection named 'Homework 1' containing several API requests. The main panel displays a 'DELETE' request to 'http://127.0.0.1:5000/party/2...'. The request body is empty. The response is shown in the 'Body' tab, indicating a 200 OK status with a response time of 14 ms and a body size of 170 B. The response body is a JSON object: `{ "msg": "Party deleted!" }`. At the bottom, a terminal window shows the output of a Flask application, including the message 'Serving Flask app "bedrock\_a\_party"' and a log of HTTP requests, including the successful DELETE request.

12- Delete an existing Party (lines 52-56 of parties.py)

Postman

File Edit View Help

Home Workspaces Reports Explore

Search Postman

My Workspace

New Import

Homework 1

- POST POST new party to parties
- GET GET parties
- GET GET party 2
- GET GET party 100
- POST POST food item from valid user ...
- GET GET foodlist party 2
- GET GET loaded parties
- POST POST food item from invalid us...
- POST POST empty party
- DEL DELETE valid food item Party 2 ...
- DEL DELETE invalid food item Party 2
- DEL DELETE party 2

DELETE http://127.0.0.1:5000/party/2/foodlist/Francesco/pizza ...

Params Auth Headers (6) Body Pre-req. Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	Bulk Edit
Key	Value	Description	

Body Cookies Headers (4) Test Results 400 BAD REQUEST 18 ms 333 B Save Response

Pretty Raw Preview Visualize JSON

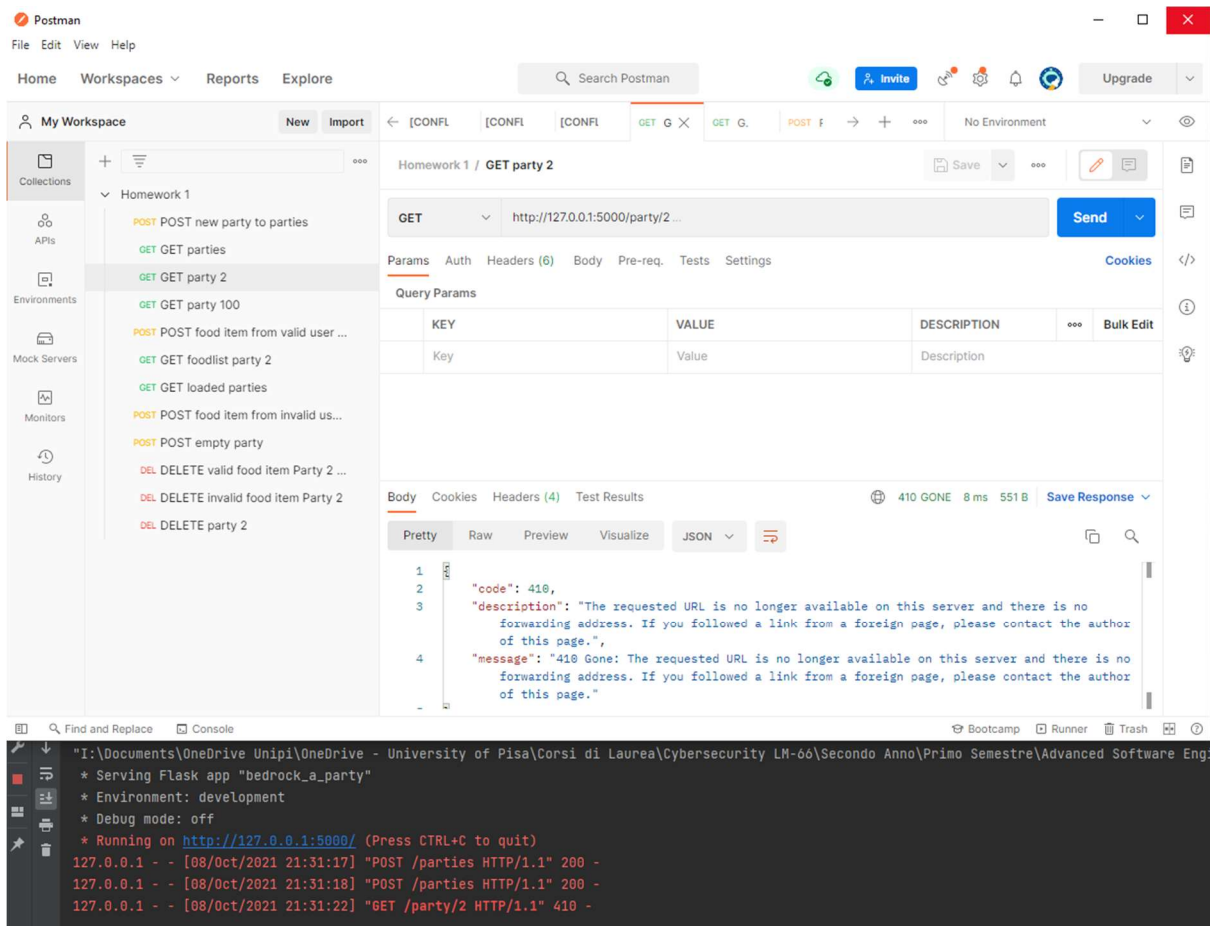
```
1 {
2   "code": 400,
3   "description": "'user Francesco has not added pizza to this party foodlist'",
4   "message": "400 Bad Request: 'user Francesco has not added pizza to this party foodlist'"
5 }
```

Find and Replace Console

Bootcamp Runner Trash

```
127.0.0.1 - - [08/Oct/2021 20:51:22] "POST /parties HTTP/1.1" 400 -
127.0.0.1 - - [08/Oct/2021 20:51:52] "GET /party/2 HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:52:38] "GET /party/100 HTTP/1.1" 404 -
127.0.0.1 - - [08/Oct/2021 20:53:07] "POST /party/2/foodlist/Francesco/pizza HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:53:40] "POST /party/2/foodlist/Marco/pizza HTTP/1.1" 401 -
127.0.0.1 - - [08/Oct/2021 20:53:57] "GET /party/2/foodlist HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:54:16] "DELETE /party/2/foodlist/Francesco/pizza HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 20:54:35] "DELETE /party/2/foodlist/Francesco/pizza HTTP/1.1" 400 -
```

13- Delete a non-existent food item from a party, through a valid guest (lines 39-40 of party.py and 96-97 of parties.py)



#### 14- GET a non-existing party in a special condition

The above code deserves remarking upon, as it is a bug generated by line 135 of `parties.py`.

```
if int( id) > _PARTY_NUMBER:
```

This line should be a `>=` check, because `_PARTY_NUMBER` is incremented right after assigning the latest party id. This means that it will always be 1 higher than the highest valid party id. If the highest party id is 1 as in that picture, and we try and GET the party with id 2, we will receive an inaccurate error message as a result.

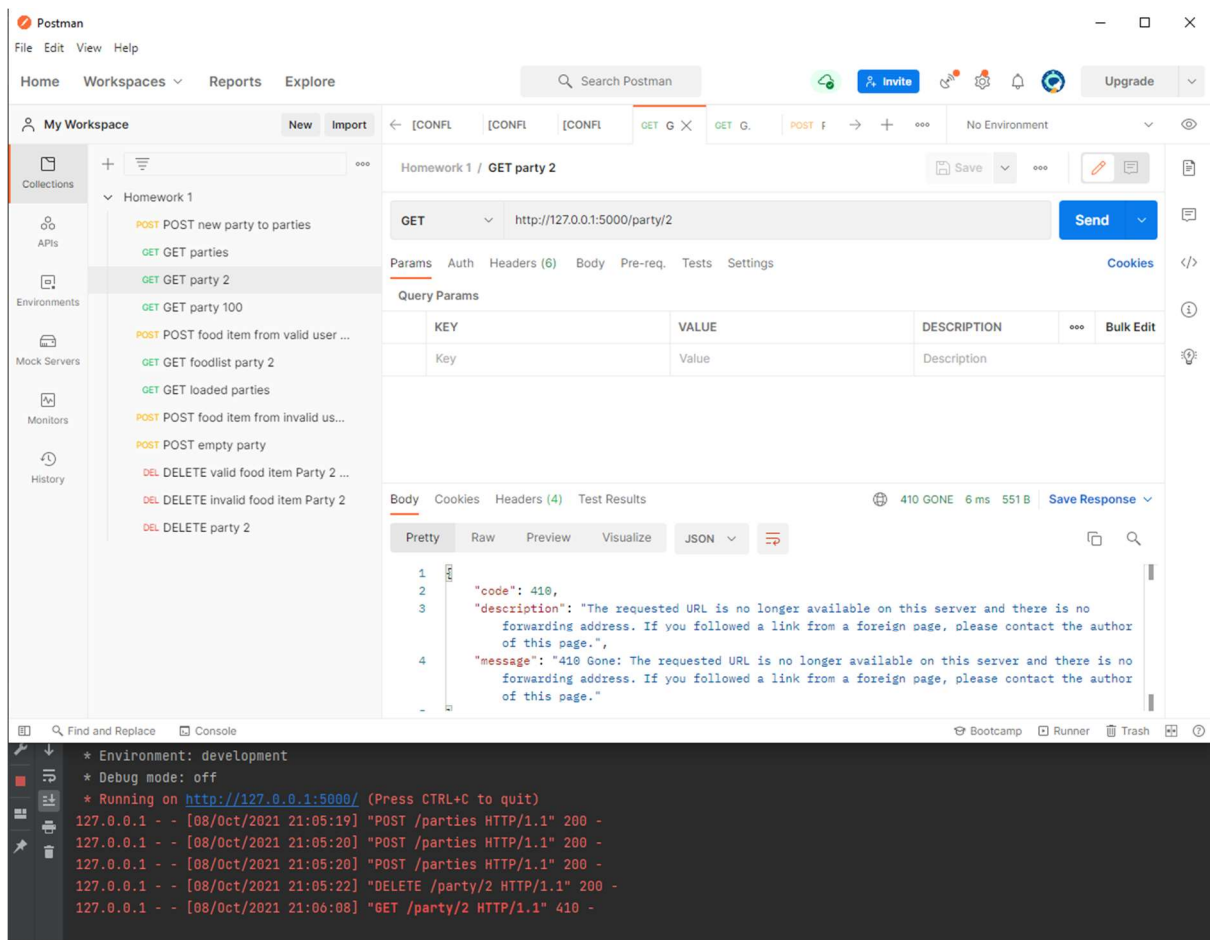
The screenshot shows the Postman interface with a workspace named 'Homework 1'. The selected collection is 'POST food item from valid user party 2'. The request is a POST to `http://127.0.0.1:5000/party/2/foodlist/Francesco/pizza...`. The response is a 400 BAD REQUEST with the following JSON body:

```
{
  "code": 400,
  "description": "'Francesco already committed to bring pizza'",
  "message": "400 Bad Request: 'Francesco already committed to bring pizza'"
}
```

The console at the bottom shows the following log entries:

```
* Environment: development
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [08/Oct/2021 21:01:01] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 21:01:01] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 21:01:02] "POST /parties HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 21:01:07] "POST /party/2/foodlist/Francesco/pizza HTTP/1.1" 200 -
127.0.0.1 - - [08/Oct/2021 21:01:19] "POST /party/2/foodlist/Francesco/pizza HTTP/1.1" 400 -
```

15- One user trying to insert the same food twice (lines 30-31 of `party.py` and 88-89 of `parties.py`)



16- Trying to access a deleted party (line 138, parties.py)

This should cover all possible operations within the code.